

REMARKS/ARGUMENTS

The Office Action mailed August 13, 2003 has been reviewed and carefully considered. Claims 18 and 37 have been amended. Claims 18-37 are pending in this application, with claims 18 and 37 being the only independent claims. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed August 13, 2003, claims 18, 21-26 and 29-37 stand rejected under 35 U.S.C. §103 as unpatentable over GB 2 295 476 (Farhangi) in view of U.S. Patent No. 5,767,505 (Mertens).

Claims 19-20 stand rejected under 35 U.S.C. §103 as unpatentable over Farhangi and Mertens and further in view of the article "Methods and Tools for Performance Evaluation and Validation of Vehicle-Roadside Communications Proposed for Standardization, by Rokitansky, et al. (Rokitansky).

Claims 27-28 stand rejected under 35 U.S.C. §103 as unpatentable over Farhangi and Mertens in further view of U.S. Patent No. 5,717,390 (Hasselbring).

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief summary of the present invention is appropriate. The present invention relates to a roadside control device for checking the correct operation of a toll apparatus which is installed in a motor vehicle. The toll apparatus is installed in the motor vehicle and performs a satellite-supported electronic toll deduction. The control device of the present invention does not actually deduct the tolls itself. Rather, it ensures that the toll apparatus is working properly and prevents deception and/or other misuse of the toll apparatus (see page 2, lines 10-15).

To accomplish its objective of ensuring proper operation of the toll apparatus in the motor vehicle, the control device of the present invention includes a communication device 2 for the

wireless exchange of information with the toll apparatus in a vehicle passing the control device. The information exchanged relates to the current operating state of the toll apparatus in the passing vehicle (see page 4, last paragraph). This information may comprise details regarding the vehicle class used for determination of the toll (see page 5, lines 1-3). The control device also include a classification device 3 for allocating the passing vehicle to a vehicle class. The classification device 3 comprises a sensor system and determines the vehicle class of the passing vehicle based on the signals detected by the sensing system (page 6, line 24 to page 7, line 5). An evaluating device 5 is arranged for performing a plausibility check which determines whether the information supplied by the communication device comports with the vehicle class to which the passing vehicle is allocated by the classification device (page 9, lines 3-16). If the communication device is unsuccessful in exchanging information with the toll apparatus of the passing vehicle or if the plausibility check yields a negative result, a recording device 7 of the control device records the license plate of the passing vehicle.

Independent claims 18 and 37 have each been amended to clarify that the communication device receives information from the toll apparatus on the passing vehicle and that the evaluating means determines whether the information received by the communication device from the toll apparatus comports with the vehicle class to which the passing vehicle was allocated by the classification means.

Farhangi discloses a GPS electronic road pricing system including an on-vehicle road pricing system which can be interrogated by an interrogation system. The road pricing system includes a receiver for receiving GPS position data, a controller for producing billing information based on the position data, and means for correcting the positional data. Starting at page 9, fourth paragraph, Farhangi discloses that the on-vehicle equipment includes a self-test mechanism which

keeps a record of error codes based on incidents such as if the unit is tampered with, if the value of the smart card is below a permitted value, or if the antenna is covered more than a pre-specified period of time (see page 9, last paragraph, to page 10, first paragraph). Furthermore, Farhangi discloses an interrogation system starting on page 10, third paragraph, which includes integrated cameras and interrogation enclosures (see Fig. 4). The interrogation system first sends an interrogation pattern signal to the vehicle, to which the vehicle is required to respond in an appropriate time period. If a response is received, it is analyzed for any error codes. If there is no response or if there are error codes in the response, the camera captures the vehicle license.

Farhangi fails to teach or suggest "classification means for allocating the passing vehicle to a predetermined vehicle class" or evaluating means for carrying out a plausibility check of data, as recited in independent claim 18. The interrogation system of Farhangi does not classify the vehicle. Furthermore, since there is no classification of the passing vehicle, Farhangi can not perform a plausibility check to ensure that the information in the toll apparatus comports with the classification allocated to the vehicle by the classification device.

Mertens fails to teach or suggest that which Farhangi lacks. Mertens discloses a system for determining toll charges for traffic routes. According to Mertens, each vehicle includes an in-vehicle device (see Fig. 2) which includes a GPS receiver for determining a location of the vehicle. When the vehicle reaches a virtual collecting station 2, 3, a fee is deducted (see col. 5, lines 21-27). The fee to be deducted is determined in the vehicle device (col. 5, lines 64-67). Monitors 4 are also placed along the route. Before reaching a monitor 4, a vehicle is required to submit control data to a central point 11 via a mobile radio network (col. 5, lines 28-32). When the vehicle passes the monitoring point 4, the license plate is recorded and, if desired, the shape of the vehicle is also recorded (col. 5, lines 32-36). If the recorded image corresponds to control data in the central point,

a transmission of the recorded image to the central point 11 is cancelled. However, if a vehicle recorded by the monitor has no correlating control data, a report by the central point 11 is made via an output device 17 so that unauthorized use can be followed (col. 5, lines 36-41).

Mertens fails to teach or suggest classification means for allocating the passing vehicle to a predetermined vehicle class, as recited in independent claim 18. Although Mertens states that a shape of a vehicle may be recorded, there is no teaching or suggestion that the vehicle is allocated to a vehicle class based on the shape of the vehicle. It is respectfully submitted that the recordation of the shape alone does not teach or suggest the allocation of a passing vehicle to a vehicle class. Accordingly, Mertens fails to teach or suggest the classification means recited in independent claim 18.

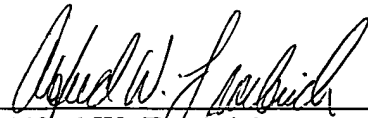
Independent claim 37 is a method claims including method steps for allocating the passing vehicle to a vehicle class and performing a plausibility check to determine whether the information in the toll apparatus comports with the vehicle class to which the passing vehicle was allocated by the classification means. Accordingly, it is respectfully submitted that independent claim 37 is also allowable over Farhangi in view of Mertens.

Dependent claims 19-36, being dependent on independent claim 18, are deemed allowable for the same reasons expressed above with respect to independent claim 5.

The application is now deemed to be in condition for allowance and notice to that effect is solicited.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By 
Alfred W. Froebrich
Reg. No. 38,887
551 Fifth Avenue, Suite 1210
New York, New York 10176
(212) 687-2770

Dated: December 15, 2003